

The California Earthquake Advisory Plan

What OES Does

- Convenes CEPEC
- Disseminates findings and notifications to counties and media
- Developed California Earthquake Prediction Response Plan
- Developed California Earthquake Advisory Response Plan
- Plans date to 1990-need revision

California Earthquake Prediction Evaluation Council

- 9 Scientists from government, universities or private sector
- Appointed by the OES Director
- Advise OES and the Governor on credibility of predictions and policy options
- Chaired by the State Geologist
- Provides immunities
- Meets as necessary

CEPEC Rapid Assessment Plan

- Post Earthquake ($M > 5$) Conference Call
- Assessment of Probabilities 'Follow-on' Quake
- Provide advice and recommendations to OES, who may then Issue an Earthquake Advisories
- Not every M5 generates and advisory

Earthquake Advisory

- Earthquake Advisories are statements by OES of scientific assessments of enhanced likelihood for damaging earthquakes in a designated area and time frame (3-5 days).
- OES notifies State agencies, local governments and federal agencies.
- May issue press advisory.

OES' Notification Process

- Local Government (also state and Federal agencies) will be notified via CLETS, CAWAS and Dialogic
- OAs are asked to forward message to county emergency services staff & cities
- OES will notify OAs approximately 30 minutes before release to the media
- At the end of the period OES will, as appropriate, cancel or extend Advisory

Earthquake Advisory

- Local governments disseminate information to key personnel, ensure readiness of systems essential to emergency operations, implement protective and mitigative actions, provide guidance to public on appropriate precautionary actions.

OES Advice to Local Government

- Disseminate information to key personnel
- Ensure the readiness of systems essential to emergency operations
- Implement protective and mitigative actions
- Provide guidance to the public on appropriate precautionary actions
- Possibly more...,

Advisories Considered/Issued

- June 1985 San Diego County (Issued)
- July 1986 North Palm Springs (Not Issued)
- July 1986 Chalfant Valley (Issued)
- October 1987 Whittier Narrows (Not Issued)
- November 1987 Superstition Hills (Not Issued)
- June 1988 Gorman (Not Issued)
- June 1988 Lake Elsin (Issued)
- August 1989 Lexington Reservoir (Issued)
- October 1989 Loma Prieta
- April 1992 Humboldt (Not Issued)
- June 1992 Landers-Big Bear (Issued)
- November 2004 Bombay Beach Swarm (not Issued)
- June 2005 Yucaipa earthquake
- October 2007 San Jose (Issued)

Lake Elsin Advisory

- OES advises Santa Clara, Santa Cruz, Monterey and San Benito Counties
- Increased likelihood exists for continued seismic activity
- As large as or larger than M5.7 on 6/27/89
- Over approximately next 5 days
- No specific prediction or threat

Joshua Tree Earthquake 4/23/92, M6.2

- CEPEC principally concerned with loading of San Andreas fault, northern end of the Coachella segment. Aftershock seismicity approached and turned parallel to San Andreas.

1992 Landers Earthquake

- Following Landers earthquake CEPEC advised OES
- “A Magnitude 6 or larger event on the San Andreas between the Cajon Pass and Bombay Beach that has been verified by the NEIC should be the basis for OES to issue an advisory.”
- These advisories should be pre-developed.

June 16, 2005, M4.9 Yucaipa earthquake

- Historically, this has been a quiet area, not having had a magnitude 5 or greater earthquake in at least 125 years. The event was located near the southeastern terminus of the 1812 earthquake. The San Andreas fault to the southeast of the event, the Coachella segment, has not ruptured in over 300 years.
- The standard aftershock probability report on the CISN (California Integrated Seismic Network) website states "Most likely, the recent mainshock will be the largest in the sequence. However, there is a small chance (APPROXIMATELY 5 TO 10 PERCENT) of an earthquake equal to or larger than this mainshock in the next 7 days."
- CEPEC felt this statement provided a sufficient statement of the probabilities as we understand them and decided not to provide additional comment beyond the aftershock probability statement already provided on the CISN and the STEP websites.

30 October 2006, M5.6, Calaveras Fault

- CEPEC believes that this evening's earthquakes have significantly increased the probability above the normal level for a damaging earthquake along the Calaveras and/or Hayward faults within the next several days. However, the overall likelihood of such an event is still low. Scientists will be continuing to monitor the situation and advise OES of any changes. CEPEC recommends that residents in the San Francisco Bay area review their earthquake preparedness and family communication plans.

- Automatic aftershock statements and STEP have automated some of CEPEC's earthquake advisory activities.
- Automatic advisory for a specific potential larger earthquake has not been developed.